

Exhibit A
Scope of Services
Demolition of Decommissioned Wastewater Treatment Facilities
City of Durham

Scope of Services: The scope of services generally includes preliminary engineering, design/permitting, bidding and negotiation, construction contract administration and construction observation for the demolition of the decommissioned Eno WWTP, Lick Creek WWTP, Farrington Road WWTP (package) and Hope Valley WWTP.

Task 1 - Preliminary Design Services

1. Conduct project kick-off meeting with City staff and gather record drawing information for the Eno WWTP, Lick Creek WWTP, Farrington Road WWTP and Hope Valley WWTP.
2. Conduct a field visit, in the company of City staff, to each project site and evaluate existing conditions relative to data included on respective record drawings.
3. Conduct structural and electrical investigations of existing facilities with City staff.
4. Coordinate with local electric utility company to develop a plan to modify and/or demolish the existing electric services to each of the four (4) facilities.
5. Coordinate with City/County Building Inspections and Public Works-Stormwater departments to identify required local permits.
6. Conduct lead paint and asbestos inspections.
 - a. Perform a limited paint/coating evaluation at each site and conduct laboratory analyses to broadly characterize paints and coatings that may contain lead prior to the onset of work in/on existing structures.
 - b. Perform a limited asbestos survey at each site and conduct laboratory analyses to identify readily accessible materials that are suspected of containing asbestos prior to the onset of work in/on existing structures.
 - c. Generate a report documenting sampling activities and tabulating results.
7. Coordinate with City staff to develop a sampling plan for residual water and solids and determine the appropriate actions required to stabilize, remove and dispose of said residual material as applicable. Potential type of future reuse of the site will impact the required level of testing.
8. Coordinate with City staff and develop a preliminary demolition plan for each site that includes, but is not limited to, the following:
 - a. Summary of existing facilities to remain in place. Discussion shall include recommendations on measures to prevent interruption of service for equipment/facilities to remain in operation.
 - b. Summary of existing facilities to be removed from site and the extent of demolition. Potential type of future reuse of the site will impact the required level of demolition.
 - c. Summary of site restoration goals and objectives. Preliminary site analysis and early thoughts on types/timeframe of potential reuse.
9. Meet with City to review the preliminary demolition plan for each site.
10. Conduct topographic survey and field location of existing structures, equipment, etc. as necessary to verify as-built drawings for each site. Provide boundary survey and locate property corners for the Farrington Road and Hope Valley sites. Recordable plat Farrington Road and Hope Valley sites to be prepared for City.
11. Prepare closure plan for Lick Creek WWTF lagoon.
 - a. Assist the City with lagoon closure notification letter to the Raleigh Regional Office Aquifer Protection Section (RRO APS).

- b. Prepare closure plan in accordance with *Guidelines for the Closure of Permitted Wastewater Ponds and Lagoons* to include the following elements at a minimum:
 - 1) Complete NCDENR lagoon closure checklist with chosen options and requirements indicated.
 - 2) Summary of the historical use of the lagoon and its present status
 - 3) Future plan for site
 - 4) Disposal options for wastewater
 - 5) Disposal options for sludge
 - 6) Sludge disposal location(s)
 - 7) Sampling plan for wastewater and/or sludge
- c. Prepare grid system for the existing lagoon that will identify locations for sludge deposit sampling and measurement of the residual deposit depth along the bottom.
- d. Conduct composite wastewater sampling to be sent to certified lab for analysis.
- e. Conduct sludge sampling at the locations identified in item 11.c above to be sent to a certified lab for fecal coliform and TCLP analysis.
- f. Meet with City to review the preliminary lagoon closure plan.
- g. Submit closure plan for RRO APS review/comment

Task 2 – Final Design Services

- 1. Prepare preliminary plans and specifications for plant demolition for each plant site based upon the preliminary demolition plan prepared in Task 1 above. Prepare final site analysis and site restoration plans for each site. Prepare future reuse matrix.
- 2. Prepare preliminary construction cost estimate.
- 3. Meet with City to review the preliminary design plans and specifications and attend up to two (2) additional meetings with the City during the final design phase at City's request (total of 3 meetings during design phase).
- 4. Finalize design based on City comments.
- 5. Prepare and furnish contract plans and specifications as necessary for the proper construction of the project.
- 6. Prepare all documents necessary for the taking of bids and letting of contract(s) for the proposed work. It is understood and agreed that the Engineer shall be allowed to insert in Durham construction contract documents, provisions for reimbursement for printing, binding, mailing, and other costs incidental to issuing of said contract plans, specifications and documents.
- 7. Prepare and submit permit applications. We anticipate that this project will require a NCDLR - Sedimentation and Erosion Control Permit at a minimum and possibly a Stormwater Permit or other local permits as may be required. We will coordinate with City/County Building Inspections accordingly.
- 8. Prepare final construction cost estimate.

Task 3 - Bidding and Negotiation

- 1. Assist the City in the advertising for bids for the work to be completed.
- 2. Furnish copies of the Bidding Documents as requested by the Contractors and other interested parties for bidding.
- 3. Prepare agenda and conduct pre-bid meeting.
- 4. Prepare, as may be required, written addenda amending the Bidding Documents.
- 5. Assist the City in the receiving of bids, tabulate same for ready comparison, and advise the City to the best of Wooten's ability as to proper and judicious award of contract(s).
- 6. After award of contract(s), prepare contract documents for execution by the Contractor(s) and the City.

Task 4 - Construction Contract Administration Services

1. Prepare agenda and conduct a preconstruction conference and provide minutes to all attendees.
2. Review and approve, for conformance with the design concept, any necessary shop and working drawings furnished by contractors. Furnish the City with a complete set of shop drawings upon completion of construction.
3. Interpret the intent of the drawings and specifications to protect the City against defects and deficiencies in construction on the part of the contractors. The Engineer will not, however, guarantee the performance by any contractor.
4. Provide general engineering review of the work of the contractors as construction progresses and hold progress conferences to ascertain that the Contractor is conforming with the design concept and construction schedule.
5. Cooperate and work closely with the City and appropriate regulatory agencies during construction.
6. Review the Contractor's application for progress and final payment, and when approved, submit same to the City for payment.
7. Prepare Change Orders and make revisions to the Contract Documents for approval by the City and others on a timely basis.
8. Make final inspection of all construction, prepare contract close-out documents, and provide a written certification of project completion to the City and required State agencies.

Task 5 - Construction Observation Services

1. After award of the contract(s), the Engineer will provide periodic observation of the work as appropriate to the state of construction. The Project Manager and Construction Administrator will make visits to the job site to observe the progress of the work and consult with the City and the Observer.
2. Construction Observer shall observe materials and finished workmanship, check all layouts of work, keep the necessary or required records of inspection, review estimates for payment to contractors and make reports to the Construction Administrator and Project Manager, and provide liaison between the Engineer and the City.
3. Observation reports will be submitted to the City on a regular basis.

Task 6 – Final Deliverables

1. At the completion of construction, we will provide closeout documents and record drawings in accordance with the City of Durham's standard requirements and all required permits, final lagoon closure plan, and written certification of project completion. The final closure plan for the Lick Creek lagoon shall document all closure activities, sampling results, sludge disposal volume and location, contractor(s) involved and final certifications in accordance with APS guidelines.

Assumptions:

The following assumptions were utilized in the development of the Scope of Services and related engineering services fee:

1. No offsite improvements are included in this project.
2. Traverse boundary and locate property corners for Hope Valley site based upon 3,322 LF @ \$1.50 per foot.
3. Traverse boundary and locate property corners for Farrington Rd. site based upon 1,169 LF @ \$1.50 per foot.
4. Collect and submit for analysis approximately 120 samples during the proposed asbestos assessment for the structures at the four treatment plant sites.

5. Collect and submit for analysis approximately 40 paint chip samples during the lead containing paint survey for the structures at the four treatment plant sites.
6. Sampling for Lick Creek lagoon closure: One (1) composite wastewater sample for TSS, total nitrogen, BOD₅, pH and fecal coliform. Three (3) composite sludge samples for metals, mercury, ammonia nitrogen, TKN, total phosphorous, total % solids, and pH. Nine (9) samples for fecal coliform density and nine (9) samples for total % solids.
7. Sampling for other treatment structures: One (1) composite sample for each plant site.
8. Construction contract administration based upon a total construction period of 10 months. Assumes 6 hrs/wk for construction administrator for 43 weeks.
9. Construction observation based upon 10 hrs /wk for 35 weeks (i.e. 8 months).

Exclusions:

The following services are not included in the above outlined Scope of Services:

1. Future use site design.
2. Boundary survey and property corner locations for Eno and Lick Creek sites.
3. Industrial hygiene services related to hazardous or potentially hazardous materials other than those discussed above.
4. Demolition of flanges to search for asbestos suspect gaskets.
5. Services related to the evaluation or sampling of below grade or submerged waterproofing, mechanical or coating systems.

Engineering Services Fee:

The proposed Engineering Services Fee for the Scope of Services described above is as follows:

<i>Category of Services</i>	<i>Compensation Method</i>	<i>Estimate of Compensation for Services</i>
Task 1 – Preliminary Design Services	Lump Sum	\$63,200
Task 2 - Final Design Services	Lump Sum	\$53,000
Task 3 - Bidding Negotiation	Lump Sum	\$3,400
Task 4 - Construction Contract Administration	Lump Sum	\$36,300
Task 5 - Construction Observation	Ceiling, Not to Exceed	\$31,600
Task 6 – Final Deliverables	Lump Sum	<u>\$2,400</u>
Total:		\$189,900

Schedule:

The following is the general schedule planned for this project. Specific milestone dates will be prepared and delivered to the City upon receipt of the Notice to Proceed.

<u>Description</u>	<u>Date</u>
City Approval of Engineering Services Contract	August 2015
Commence with Preliminary Design Services	September 2015
Commence with Final Design Services	November 2015
Advertise Project for Bidding	February 2016
Open Bids	March 2016
Award Contract	April 2016
Start Construction	May 2016
Complete Construction	March 2017
Project Closeout	April 2017